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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,075	08/30/2001	Steven N. Popoff	71369.262 and PFI-015	7695

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EXAMINER
ANDRES, JANET L

ART UNIT	PAPER NUMBER
1646	

DATE MAILED: 12/31/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/943,075	POPOFF ET AL.	
	Examiner	Art Unit	
	Janet L Andres	1646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-46 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-46 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-5, 9, 10, 14-16, 20, 27, 29-31, and 39-42, drawn to rat polynucleotides, means of expression, and methods of use, classified in class 435, subclasses 69.1, 320.1, 325, and 455, and class 536, subclass 23.5.

II. Claims 6-8, 20, 21, 27, and 29, drawn to rat polypeptides and methods of use, classified in class 530, subclass 350, and class 514, subclass 2.

III. Claims 11, 25, 26, 32, 33, 45, and 46, drawn to anti-human antibodies and methods of use, classified in class 530, subclasses 388.1 and 389.1, and class 424, subclass 139.1.

IV. Claims 12, 13, 26, 43, 45, and 46, drawn to anti-rat antibodies and methods of use, classified in class 530, subclasses 388.1 and 389.1, and class 424, subclass 139.1.

V. Claims 16-20 and 27-31, drawn to human polynucleotides and methods of use, classified in class 435, subclasses 69.1 and 455.

VI. Claims 20, 27, and 29-31, drawn to agents that stimulate osteoactivin-mediated bone differentiation and methods of use, classified in class 514, subclass 2.

VII. Claims 20-24, 27, 29-31, and 44, drawn to human polypeptides and methods of use, classified in class 530, subclass 350, and 514, subclass 2.

VIII. Claims 26, 45, and 46, drawn to agents that inhibit osteoactivin-mediated bone differentiation and methods of use, classified in class 514, subclass 2.

IX. Claims 34-37, drawn to methods of screening for agents that modulate bone formation, classified in class 435, subclass 6.

X. Claim 38, drawn to a method of diagnosis, classified in class 424, subclass 9.1.

Claims appear in more than one group if they encompass more than one invention.

The inventions are distinct, each from the other because of the following reasons:

The polynucleotides of Invention I are not related to the polypeptides of Invention II. They differ structurally and functionally and cannot be used together or interchangeably.

The polynucleotides of Invention I are not related to the antibodies of Invention III. They differ structurally and functionally and cannot be used together or interchangeably.

The polynucleotides of Invention I are not related to the antibodies of Invention IV. They differ structurally and functionally and cannot be used together or interchangeably.

The polynucleotides of Invention I are distinct from those of Invention V. They have different structural and functional characteristics.

The polynucleotides of Invention I are distinct from the agents of Invention VI because they have other uses, such as the generation of protein.

The polynucleotides of Invention I are not related to the polypeptides of Invention VII. They differ structurally and functionally and cannot be used together or interchangeably.

The polynucleotides of Invention I are not related to the agents of Invention VIII. They differ structurally and functionally and cannot be used together or interchangeably.

The polynucleotides of Invention I are distinct from the methods of Invention IX. They have other uses, such as hybridization assays.

The polynucleotides of Invention I are distinct from the methods of Invention X. They have other uses, such as the generation of protein.

The polypeptides of Invention II are not related to the antibodies of Invention III. They differ structurally and functionally and cannot be used together or interchangeably.

The polypeptides of Invention II are not related to the antibodies of Invention IV. They differ structurally and functionally and cannot be used together or interchangeably.

The polypeptides of Invention II are not related to the polynucleotides of Invention V. They differ structurally and functionally and cannot be used together or interchangeably.

The polypeptides of Invention II are distinct from the agents of Invention VI. They have other uses, such as the generation of antibodies.

The polypeptides of Invention II are distinct from those of Invention VII. They have different structural and functional characteristics.

The polypeptides of Invention II are not related to the agents of Invention VIII. They differ structurally and functionally and cannot be used together or interchangeably.

The polypeptides of Invention II are not related to the methods of Invention IX. They cannot be used in these methods.

The polypeptides of Invention II are distinct from the methods of Invention X. They have other uses, such as the generation of antibodies.

The antibodies of Invention III are distinct from the antibodies of Invention IV. They react with different proteins and thus have different structural and functional characteristics.

The antibodies of Invention III are not related to the polynucleotides of Invention V. They differ structurally and functionally and cannot be used together or interchangeably.

The antibodies of Invention III are not related to the agents of Invention VI. They differ structurally and functionally and cannot be used together or interchangeably.

The antibodies of Invention III are not related to the polypeptides of Invention VII. They differ structurally and functionally and cannot be used together or interchangeably.

The antibodies of Invention III are distinct from the agents of Invention VIII. They have other uses, such as protein purification.

The antibodies of Invention III are not related to the methods of Invention IX. They cannot be used in these methods.

The antibodies of Invention III are distinct from the methods of Invention X. They have other uses, such as protein purification.

The antibodies of Invention IV are not related to the polynucleotides of Invention V. They differ structurally and functionally and cannot be used together or interchangeably.

The antibodies of Invention IV are not related to the agents of Invention VI. They differ structurally and functionally and cannot be used together or interchangeably.

The antibodies of Invention IV are not related to the polypeptides of Invention VII. They differ structurally and functionally and cannot be used together or interchangeably.

The antibodies of Invention IV are distinct from the agents of Invention VIII. They have other uses, such as protein purification.

The antibodies of Invention IV are not related to the methods of Invention IX. They cannot be used in these methods.

The antibodies of Invention IV are distinct from the methods of Invention X. They have other uses, such as protein purification.

The polynucleotides of Invention V are distinct from the agents of Invention VI because they have other uses, such as the generation of protein.

The polynucleotides of Invention V are not related to the polypeptides of Invention VII. They differ structurally and functionally and cannot be used together or interchangeably.

The polynucleotides of Invention V are not related to the agents of Invention VIII. They differ structurally and functionally and cannot be used together or interchangeably.

The polynucleotides of Invention V are distinct from the methods of Invention IX. They have other uses, such as hybridization assays.

The polynucleotides of Invention V are distinct from the methods of Invention X. They have other uses, such as the generation of protein.

The agents of Invention VI are distinct form the polypeptides of Invention VII because they include other molecules and because the polypeptides have other uses, such as the generation of protein.

The agents of Invention VI are not related to those of Invention VIII. They differ in function and cannot be used together or interchangeably.

The agents of Invention VI are not distinct from the methods of Invention IX because they can be identified in other ways, such as by purification or binding assays.

The agents of Invention VI are not related to the methods of Invention X. They cannot be used in these methods.

The polypeptides of Invention VII are not related to the agents of Invention VIII. They differ structurally and functionally and cannot be used together or interchangeably.

The polypeptides of Invention VII are not related to the methods of Invention IX. They cannot be used in these methods.

The polypeptides of Invention VII are distinct from the methods of Invention X. They have other uses, such as the generation of antibodies.

The agents of Invention VIII are not related to the methods of Invention IX. They cannot be used in these methods.

The agents of Invention VIII are not related to the methods of Invention X. They cannot be used in these methods.

The methods of Invention IX are not related to those of Invention X. They have different method steps, require different reagents, and have different goals and outcome measures.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the searches required for the Groups are different, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet Andres, Ph.D., whose telephone number is (703) 305-0557. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler, Ph.D., can be reached at (703) 308-6564. The fax phone number for this group is (703) 872-9306 or (703) 872-9307 for after final communications.

Communications via internet mail regarding this application, other than those under U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to **[yvonne.eyler@uspto.gov]**.

All Internet email communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark Office on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Janet Andres, Ph.D.
Patent Examiner

December 30, 2002